Emerge® MPX1500

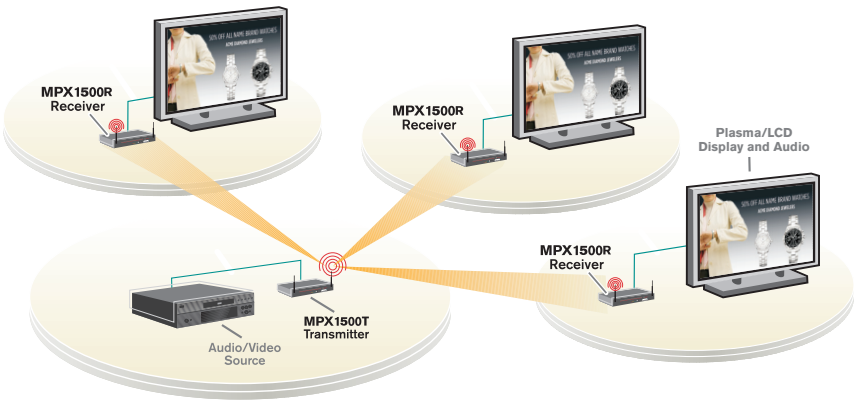
Wireless HD Multipoint Extender

MPX1500: High-definition audio and video

The Avocent Emerge MPX multipoint extender provides wireless or wired connectivity for distribution of high-definition content from a source to one or more destinations. Emerge MPX transmitters and receivers work in unison to form a managed audio video extension network able to deliver a synchronized stream of high-definition computer graphics or video and associated audio from a source to as many as eight display devices. Display device control information, content protection and interactive device control signals, including IR and serial are passed from source to sink through the extension network, providing a fully integrated solution.

Ideal for professional high-definition media applications, the MPX1500 transmitter and receiver feature a universal media port based upon a locking digital video interface (DVI-I) connector. This media port allows for extension of digital and analog media formats, including: DVI-D, HDMI, DVI-A, RGBHV or YPbPr signals. Embedded digital audio and unbalanced analog audio are both supported. The MPX system serves as a video splitter and a extender by wirelessly delivering audio and video to multiple displays up to 1000 feet away.

All MPX extenders feature an on-board web server for ease of central management. For system control and configuration, the Emerge MPX extender solution is accessible through an on-board web server that allows browser-based configuration, status monitoring, and administration. The extenders allow for centralized control of attached audio-visual equipment through RS-232 serial and infrared interfaces. The Emerge MPX product is field upgradeable to support future functionality.



The Emerge MPX1500T transmitter and MPX1500R receiver feature a universal media port based upon a digital video interface (DVI-I) connector. Support for both digital and analog video formats enables these MPX extenders to connect to HDMI, DVI-D, DVI-A, RGB and component source and display devices.

FEATURES AND BENEFITS

- **Wireless or Wired Extension.** Provides installation flexibility for wireless or wired high-definition applications.
- **Universal DVI-I Video Port.** The MPX1500 T/R features a single DVI-I media port that supports RGB, component, DVI-A, DVI-D, and HDMI video.
- **Enhanced Audio.** Supported audio standards include stereo analog audio supported via white and red RCA connectors.
- **Point to Multipoint Distribution.** High-definition computer graphics or video and associated audio can be distributed to as many as eight display devices.
- **Serial Control.** MPX1500 extenders support broadcast and bi-directional serial data transfers for management of attached display devices.
- **IR Control.** MPX 1500 extenders support broadcast and bi-directional IR data transfers for session control from the point of display or for display control from the location of the source device. Mini-jack cables allow IR blasters and receivers to be optimally placed.
- **Web Control Interface.** Allows local or remote control and configuration of the system without special software tools.
- **Serial Interface.** Allows integration with third party control systems.
- **AES 128 Bit Encryption.** Audio-visual information is encrypted with built-in Advanced Encryption Standard (AES) for secure transmission.
- **Small Form Factor.** Small footprint allows convenient installation and saves space where it's needed the most.

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EMERGE® MPX1500 MULTIPOINT EXTENDERS

Technical Specifications

Mechanical / Power / Environmental

Size: 4.55" (116 mm) D, 6.92" (176 mm) W, 1.00" (25.4 mm) H
Weight: 1.4 lbs (0.64 Kg)
Power (AC input/frequency): 100 - 240 VAC / 50 - 60Hz
Inrush Current: 14.2 Amps (AC/DC adapter)
Operating Temperature: 32°F (0°C) to 118.4°F (48°C)
Storage Temperature: -4°F (-20°C) to 140°F (60°C)
Humidity: 20% to 80% (Non-condensing)
Altitude: Altitude 10,000 ft across the operating temperature range, 35,000 ft across storage temperature range
Shock: 140G - 3 axis

Connections (Front)

2.5mm Mini-Jack: IR input
3.5mm Mini-Jack: IR blaster output, 38KHz +/- 2KHz; the IR blaster port supports enough drive current to handle 4 IR LEDs
RP-SMA Connector (2): Antenna connectors
USB: USB 1.1 (not used at this time)

Connections (Rear)

DC Power: DC barrel connector: 12VDC @ 1.5Amps
Serial (RJ-45): RJ45 serial port for control of attached display devices. Requires optional DB9-UNI female serial cable. Baud rates up to 38.4K
L1 LAN (RJ-45): IEEE 802.3 10/100 Ethernet, used for web access
Note: MPX receivers offer combined web/video functionality on a single port
L2 LAN (RJ-45): IEEE 802.3 10/100 Ethernet, used for streaming video
Note: MPX receivers offer combined web/video functionality on a single port
DVI-I: AV media port that supports a wide range of digital and analog video modes
RCA Jacks (2): Left and right jacks for unbalanced analog audio
S/PDIF: Digital audio output. Operation of this port may require a firmware upgrade

Video Details

Video Gain: Unity ±1DB
Digital Video Standards: HDCP compliant, HDMI 1.3 compliant, DVI-D DDC2B
Maximum Wired Video Bit Rate: 40 Mbps
Maximum Wireless Video Bit Rate: 20 Mbps
Video Resolutions (RGB):

Computer (RGB) at 30fps
- 640 x 480 @ 60Hz
- 800 x 600 @ 60Hz
- 1280 x 720 @ 60Hz
- 1280 x 768 @ 60Hz
- 1360 x 768 @ 60Hz

SD video (RGB) at 30 fps
- 480p @ 60Hz
- 576p @ 50Hz

HD video (RGB) at 30 fps
- 720p @ 50/60Hz

Video Resolutions (component video):

SD video (component) at 30 fps
- 480i @ 60Hz
- 480p @ 60Hz
- 576i @ 50Hz
- 576p @ 50Hz

HD video (component) at 30 fps
- 720p @ 50/60Hz
- 1080i @ 50/60Hz

Video Resolutions (HDMI and DVI-D):

Computer resolution at 30 fps
- 640 x 480 @ 60Hz
- 800 x 600 @ 60Hz
- 1280 x 720 @ 60Hz
- 1280 x 768 @ 60Hz
- 1360 x 768 @ 60Hz

SD video at 30 fps
- 480i @ 60Hz
- 480p @ 60Hz
- 576i @ 50Hz
- 576p @ 50Hz

HD video at 30 fps
- 720p @ 50/60Hz
- 1080i @ 50/60Hz

Audio Details

Line Audio Outputs: Line audio inputs less than or equal to 10K Ohm with 0-36dB of headroom
Frequency Response: Analog audio frequency response: 20Hz-20Khz with a 3dB per octave roll-off beginning at 14 kHz

Radio Bands

UNII 1: (4 channels) 5.15-5.25 GHz: These are available as 2 bonded channels
UNII 3: (4 channels) 5.725 to 5.825 GHz: These are available as 2 bonded channels
ISM (11 channels) 2.412 to 2.462 GHz (requires firmware upgrade)

Extension Distances

Wired Distance: Wired distance limitations conform to Ethernet standards for a single subnet (no routing)
Wireless Distance: Up to 300 ft (90 m) line of sight and 150 ft (45 m) through interior (gypsum) walls

Regulatory Compliance (CMN: 2003 Series)

Standards: FCC Class B, UL, cUL, RoHS, CE, ICES-003, WEEE

Warranty

MPX1500 T/R: Two years

MPX1500 Transmitter

MPX1500 Receiver

Ordering Details

MPX1500 Transmitter and Receiver

Part Number	Description
MPX1500T	Transmitter (Supports up to 8 receivers)
MPX1500R	Receiver

Optional Accessories

Antenna Extension Kits

Part Number	Description
5G-1M	Antenna Extension Kit, 1 Meter Cable
5G-2M	Antenna Extension Kit, 2 Meter Cable
5G-3M	Antenna Extension Kit, 3 Meter Cable

Mounting Options

Part Number	Description
RMK-56	Table/Desk Mount Bracket
PBK-01	Optional Power Supply Bracket for MPX1500R
DMK-04	Wall Mount Kit for MPX1500R
DMK-07	Desk Mount Kit for MPX1500T

Adapters

Part Number	Description
DVI-HDMI/CEC	Adapter for HDMI with CEC for MPX1500R
DVI-HD15F	DVI-D Male to HD15 Female Adapter with MPX1500 ID Bits
DVI-BNC3	Adapter for Component Video for MPX1500R

Cables

Part Number	Description
DB9-UNI	Serial RJ-45 to DB-9 Female Kit Cable, 1 FT
HDMI-1M	Male to Male 1 Meter Cable for MPX T/R

IR Blasters

Part Number	Description
IRB-100	Dual IR Blaster With 3.5mm Mini-Jack Cable
IRB-Y	3.5mm Mini-Jack Splitter for Two IRB-100 Blasters

IR Receivers

Part Number	Description
IR-RX	IR Receiver - 2.5mm With Connector

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